Why Do Emotion Words Capture Our Attention?

Tina Sutton, PhD & Abby Williams

Department of Psychology, College of Liberal Arts, Rochester Institute of Technology

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INTRODUCTION

- "…The connection between attention and emotion is a robust, reliable and important one" (Yiend, 2010, pp. 3-4)
- Categorical Negativity Theory (Pratto & John, 1991) purports attention is influenced by valence, how positive or negative a word is
- The Arousal Hypothesis (Russell, 1980) posits that words capture attention based on arousal, or how interesting a word is
- Repetition blindness (RB)
    - RB is a failure to notice the second instance of a word when presented twice closely in time
    - RB occurs because of token individuation, a perceptual error where the two separate instances are processed and remembered together
- Silvert et al. (2004) found negative emotion words were remembered better when shown in RSVP once, but when they were repeated, negative words had the worst recall
- Knickerbocker and Altarriba (2013) found RB occurred more with negative emotion words (e.g., sad) than negative emotion-laden words (e.g., death)
- The current study examined negative and positive emotion words, as well as neutral words using a RSVP paradigm
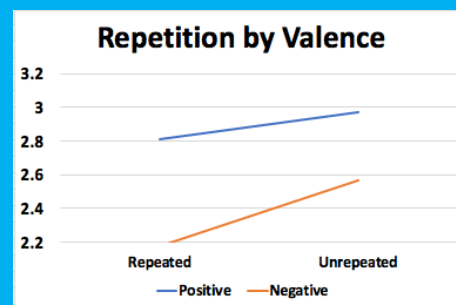
METHOD

- 74 participants (*M* age= 19.68); 51.4% male and 48.6% female
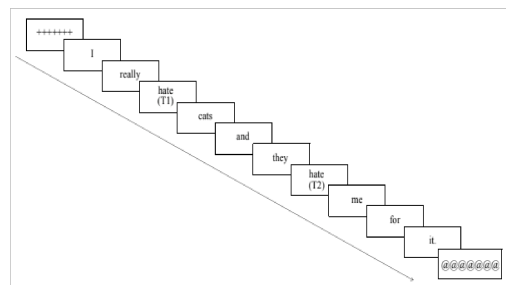
	Unrepeated		Repeated		RB Effect	
	Mean	SD	Mean	SD	Mean	SD
Positive	51.8	27.5	70.3	26.3	-18.4	26.9
Negative	64.4	20.9	55.9	26.3	8.5	23.6
Neutral	66.3	24.1	51	26.9	15.3	25.5

Figure 1. Mean correct recall (in %) of target word pairs.

Figure 2. Interaction of repetition and valence during target pair recall.
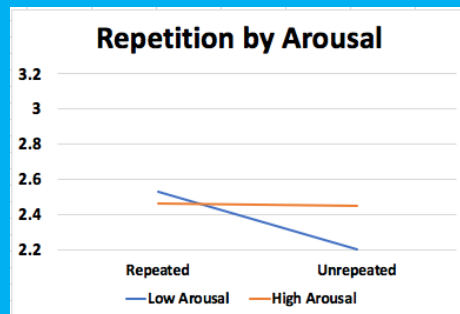

Repetition by Valence

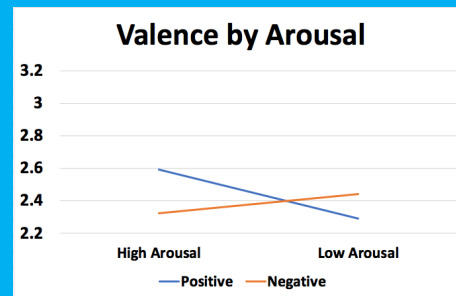*Figure 3.* Interaction of repetition and arousal on mean recall of target pairs.

Repetition by Arousal

Figure 4. Interaction of valence and arousal during target pair recall.

Valence by Arousal

DISCUSSION

- Interaction of valence and repetition
    - Consistent with the findings of Knickerbocker and Altarriba (2013), it seems RB effects can be affected by emotion/valence. This is inconsistent with categorical negativity theory, as recall of negative words was impacted by whether or not the word was repeated.
- Interaction of repetition and arousal
    - The arousal hypothesis is partially supported such that high arousal words were recalled more often than low arousal words in the unrepeated condition.
- Interaction of valence and arousal
    - A word's arousal value only makes a difference on recall if it is positively-valenced. This suggests that valence and arousal interact.
- Overall, positive words do not exhibit typical RB
    - Positive word recall benefitted from repetition
    - Improved performance could potentially be due to an ability to token individuate between two instances of repeated positive words better than other word types.
    - Priming effects may play a role as well.

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Contact Information: aew4701@rit.edu